

Problem 2 Editorial: Office of Business contracts and Brand Protection

3 Points

Problem ID: `rso`

Rank: 1

Special thanks to Aleksandar Yanev for contributing to this editorial.

Overview

Problem Statement: <https://calico.berkeley.edu/files/calico-fa22/contest/rso/rso.pdf>

To solve this problem, we can simply go through each of the branding guidelines after doing a bit of string processing. But make sure to check them in the right order—a common pitfall is to output an answer too early before checking all the necessary conditions!

Main Test Set

Dates and Names

Solutions available in [C++](#), [Java](#), [Python](#)

First, we check if the length of the RSO's name is less than 50 characters. You can do this using the `len()` builtin function in Python, the `length()` method of the String class in Java, or the `length()` method of the String class in C++. If this is not the case, we know that the name must be invalid regardless of the other conditions so we output `INVALID`—otherwise, we need to keep going.

Next, we can check to see if the registration year is before 2010 by comparing it to 2010 with the `<` operator. If so, then we know it must be valid regardless of what the name actually is because RSO names before 2010 are exempt from the trademark rule. Therefore, we output `VALID` (*sigh*, better times).

Finally, we check that the RSO name abides by the given trademark guidelines. Since all trademark requirements are only concerned with the first word in each name, we can just focus on that word when evaluating this condition. There's different ways to do this in different languages, and a quick google search for "get first word of string in Python/Java/C++" can show you how. But a simple way that almost all languages support is to first split the string by the spaces (eg. "a sd f" becomes ["a", "sd", "f"]) and then taking a look at the first word. Next, since we don't care about capitalization, we can convert all its letters to lowercase (eg. "CaLiCo" becomes "calico") before moving forward. Now, we can just check whether the first word is exactly equal to "california", "cal", or "berkeley". If the first word matches any of these, we output `INVALID`, and `VALID` otherwise.